

**Mississippi Valley State University**  
**33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6**

**May 2004**

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	13	103	116	88	92 ?	108	98	94	121 ?	104	95	143	98	25	0	0	0	0	0	1297
2	0	0	0	0	0	7	96	208	458	663	808	948	998	913	783	598	360	158	26	0	0	0	0	0	7024
3	0	0	0	0	0	34	194	404	591	779	942	880	891	790	822	590	332	157	33	0	0	0	0	0	7439
4	0	0	0	0	0	41	184	399	604	773	893	953	953	884	755	579	370	158	28	0	0	0	0	0	7574
5	0	0	0	0	0	35	181	389	592	765	889	953	942	882	755	578	372	162	29	0	0	0	0	0	7525
6	0	0	0	0	0	36	190	401	608	784	910	966	971	905	776	596	382	166	30	0	0	0	0	0	7721
7	0	0	0	0	0	36	187	396	601	774	890	947	950	880	748	573	364	157	30	0	0	0	0	0	7532
8	0	0	0	0	0	37	185	387	589	737	871	892	873	718	508	393	234	141	24	0	0	0	0	0	6590
9	0	0	0	0	0	22	115	324	561	645	708	750	515	511	508	401	300	84	18	0	0	0	0	0	5460
10	0	0	0	0	0	19	83	202	489	755	888	940	857	749	613	605	373	111	31	0	0	0	0	0	6716
11	0	0	0	0	0	35	131	113	419	445	581	714	706	927	541	215	165	35	6	0	0	0	0	0	5035
12	0	0	0	0	0	11	19 ?	49	70	126	204 ?	240	318	200	119	93	58	?	5	0	0	0	0	0	1512 ?
13	0	0	0	0	0	17	75	249	183	145	284	393	708	624	524	409	181	66	10	0	0	0	0	0	3868
14	0	0	0	0	0	10	24	99	293	350	183	121	208	353	374	100	63 ?	?	2	0	0	0	0	0	2180 ?
15	0	0	0	0	0	33	87	64	141	382	726	557	548	467	112	230	269	74	14	0	0	0	0	0	3705
16	0	0	0	0	0	17	79	182	304	444	787	545	826	519	487	134	313	158	36	0	0	0	0	0	4832
17	0	0	0	0	0	23	87	227	490	737	888	711	398	534	737	493	87	25	7	0	0	0	0	0	5443
18	0	0	0	0	0	29	158	294	574	729	885	809	807	882	744	215	354	141	14	0	0	0	0	0	6633
19	0	0	0	0	0	18	82	133	236	268	574	534	553	853	508	423	389	166	35	0	0	0	0	0	4771
20	0	0	0	0	0	19	43	225	616	799	901	919	903	815	749	554	413	171	38	0	0	0	0	0	7166
21	0	0	0	0	0	44	191	396	583	728	777	727	842	740	591	423	373	162	39	0	0	0	0	0	6617
22	0	0	0	0	2	38	194	325	541	730	877	974	888	699	678	624	397	182	40	0	0	0	0	0	7189
23	0	0	0	0	1	46	203	330	541	766	769	646	840	780	539	491	444	195	35	0	0	0	0	0	6626
24	0	0	0	0	0	48	205	324	601	613	789	715	823	813	635	455	437	196	38	0	0	0	0	0	6692
25	0	0	0	0	0	32	98	318	509	732	798	872	713	707	356	262	269	112	21	0	0	0	0	0	5800
26	0	0	0	0	0	26	96	259	519	481	547	816	867	835	691	619	405	186	42	0	0	0	0	0	6388
27	0	0	0	0	1	40	168	229	584	768	706	838	899	732	655	521	358	214	34	0	0	0	0	0	6748
28	0	0	0	0	0	16	80	79	153	362	170	247	136	123	129	248	159	111	7	0	0	0	0	0	2019
29	0	0	0	0	1	27	158	345	512	724	851	915	892	805	730	473	279	88	15	0	0	0	0	0	6814
30	0	0	0	0	0	26	186	360	360	469	523	881	562	384	432	506	337	154	22	0	0	0	0	0	5202
31	0	0	0	0	0	0	28 ?	137	134	367	782	968	981	901	794	620	418	206	43	0	0	0	0	0	6380
Avg	0	0	0	0	0	27	126	257	437	578	694	725	725	679	564	423	303	139	25	0	0	0	0	0	5693
S/D	0	0	0	0	0	12	59	115	183	223	251	262	260	237	217	177	113	50	12	0	0	0	0	0	1868
S/A	0	0	0	0	2.36	0.45	0.47	0.45	0.42	0.38	0.36	0.36	0.36	0.35	0.38	0.42	0.37	0.36	0.49	0	0	0	0	0	0.33
Min	0	0	0	0	0	0	19	49	70	92	108	98	94	121	104	93	58	25	2	0	0	0	0	0	1297
Max	0	0	0	0	2	48	205	404	616	799	942	974	998	927	822	624	444	214	43	0	0	0	0	0	7721
n	0	0	0	0	17	355	356	369	371	360	366	372	369	366	371	368	361	347	320	0	0	0	0	0	5069

Daylight Data Recovery: 0.0% missing; 1.7% exceed the 15% QC threshold -- 5159 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 18036F3    Calibration Factor: 7.430 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

May 2004

Direct Normal Solar Radiation  
 Hourly Integrated and Daily Totals  
 Instrument: Eppley NIP  
 Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
9	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
11	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
12	0	0	0	0	0	*	*	*	*	?	?	*	?	?	*	*	*	*	*	0	0	0	0	0	*
13	0	0	0	0	0	*	*	*	*	*	*	*	*	179 ?	*	*	*	*	140 **?	0	0	0	0	0	*
14	0	0	0	0	0	276 ?	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	?	0	0	0	0	0	*
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
19	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
20	0	0	0	0	*	*	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
21	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
22	0	0	0	0	?	204 ?	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
23	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
24	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
25	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
26	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
27	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
28	0	0	0	0	*	*	*	*	*	*	*	*	*	?	?	*	?	*	*	0	0	0	0	0	*
29	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
30	0	0	0	0	?	?	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
31	0	0	0	0	*	425 ?	85 ?	*	?	37 *	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
Avg	0	0	0	0	0	302	85	N/A	N/A	37	N/A	N/A	N/A	179	N/A	N/A	N/A	N/A	140	0	0	0	0	0	N/A *
SD	0	0	0	0	0	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	204	85	N/A	N/A	37	N/A	N/A	N/A	179	N/A	N/A	N/A	N/A	140	0	0	0	0	0	N/A
Max	0	0	0	0	0	425	85	N/A	N/A	37	N/A	N/A	N/A	179	N/A	N/A	N/A	N/A	140	0	0	0	0	0	N/A
n	0	0	0	0	0	10	3	0	0	2	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0

Daylight Data Recovery: 94.0% missing; 5.5% exceed the 15% QC threshold -- 5159 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**Mississippi Valley State University**  
**33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6**

**May 2004**

**Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	13	103	121	94	73	116	103	96	109	105	101	150	97	25	0	0	0	0	0	1304
2	0	0	0	0	0	7	95	197	254	257	275	229	157	104	94	92	79	53	17	0	0	0	0	0	1912
3	0	0	0	0	0	21	57	89	132	110	178	233	272	245	168	125	104	69	25	0	0	0	0	0	1825
4	0	0	0	0	0	26	63	84	105	121	134	129	124	119	111	99	83	59	20	0	0	0	0	0	1274
5	0	0	0	0	0	24	67	93	113	124	137	140	148	135	123	105	87	60	21	0	0	0	0	0	1376
6	0	0	0	0	0	26	64	86	103	110	116	117	108	103	96	87	75	55	19	0	0	0	0	0	1165
7	0	0	0	0	0	25	65	91	111	125	133	128	124	121	120	113	97	68	23	0	0	0	0	0	1343
8	0	0	0	0	0	31	78	105	129	172	173	221	312	382	381	317	211	133	24	0	0	0	0	0	2669
9	0	0	0	0	0	23	110	160	224	321	381	372	427	434	394	328	197	73	17	0	0	0	0	0	3462
10	0	0	0	0	0	20	75	195	346	258	204	216	312	342	289	171	113	90	27	0	0	0	0	0	2659
11	0	0	0	0	0	30	115	119	323	441	515	399	367	241	275	225	172	36	6	0	0	0	0	0	3265
12	0	0	0	0	0	12	20	50	73	132	198	251	319	209	123	97	63	14 ?	5	0	0	0	0	0	1565
13	0	0	0	0	0	17	79	174	184	142	287	401	412	383	344	316	177	70	11	0	0	0	0	0	2996
14	0	0	0	0	0	10	24	103	300	379	193	126	217	365	368	93	39	14 ?	2	0	0	0	0	0	2232
15	0	0	0	0	0	37	89	62	147	380	527	531	528	465	117	219	246	78	16	0	0	0	0	0	3440
16	0	0	0	0	0	18	83	189	314	380	314	329	395	353	274	140	186	108	35	0	0	0	0	0	3120
17	0	0	0	0	0	24	91	217	270	334	279	406	355	410	279	239	84	25	7	0	0	0	0	0	3019
18	0	0	0	0	0	28	103	139	168	201	289	314	246	191	202	194	160	96	15	0	0	0	0	0	2345
19	0	0	0	0	?	18	85	139	241	282	453	416	334	259	228	197	110	89	28	0	0	0	0	0	2878
20	0	0	0	0	0	20	45	183	271	228	184	190	164	176	130	138	115	71	27	0	0	0	0	0	1946
21	0	0	0	0	0	34	96	136	184	272	338	337	317	250	201	175	165	92	32	0	0	0	0	0	2628
22	0	0	0	0	?	33	94	179	203	200	178	194	270	264	231	172	136	90	31	0	0	0	0	0	2275
23	0	0	0	0	1	34	97	212	247	265	275	297	254	268	266	197	163	97	26	0	0	0	0	0	2699
24	0	0	0	0	0	34	98	203	214	284	255	292	256	263	262	198	143	94	28	0	0	0	0	0	2623
25	0	0	0	0	0	32	102	227	325	283	298	335	446	442	361	269	235	94	22	0	0	0	0	0	3470
26	0	0	0	0	0	27	98	248	368	387	434	401	339	271	237	199	147	81	29	0	0	0	0	0	3265
27	0	0	0	0	0	37	126	217	286	258	289	311	316	373	319	227	183	121	30	0	0	0	0	0	3093
28	0	0	0	0	0	17	83	83	160	342	159	248	142	118	133	219	156	106	7	0	0	0	0	0	1974
29	0	0	0	0	0	28	143	284	347	333	214	229	220	235	237	224	165	86	16	0	0	0	0	0	2759
30	0	0	0	0	0	27	175	326	323	364	414	382	374	340	336	241	192	108	20	0	0	0	0	0	3622
31	0	0	0	0	0	1	24 ?	145	139	290	346	285	191	111	89	81	73	59	26	0	0	0	0	0	1859
Avg	0	0	0	0	0	24	85	157	216	253	267	276	275	261	222	180	139	77	20	0	0	0	0	0	2454
S D	0	0	0	0	0	9	33	67	89	101	116	108	111	114	98	72	53	29	9	0	0	0	0	0	749
S/A	0	0	0	0	3.13	0.37	0.38	0.43	0.41	0.4	0.43	0.39	0.4	0.44	0.44	0.4	0.38	0.37	0.43	0	0	0	0	0	0.31
Min	0	0	0	0	0	1	20	50	73	73	116	103	96	103	89	81	39	14	2	0	0	0	0	0	1165
Max	0	0	0	0	1	37	175	326	368	441	527	531	528	465	394	328	246	133	35	0	0	0	0	0	3622
n	0	0	0	0	15	352	368	372	372	367	372	371	372	371	372	371	371	358	321	0	0	0	0	0	5125

Daylight Data Recovery: 0.0% missing; 0.7% exceed the 15% QC threshold -- 5159 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 18039F3    Calibration Factor: 7.470 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.